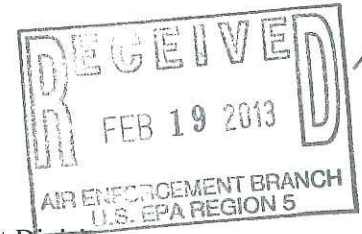


February 14, 2013



Chief, Environmental Enforcement Section
Environmental & Natural Resources Division
DJ#90-5-2-1-06894
U.S. Department of Justice
601 D Street, NW
Washington, District of Columbia 20044-7611

Air Enforcement & Compliance
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U.S. EPA Region V
Mail Code AE17J
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Bureau Chief, Air Bureau
State of Connecticut
Department of Environmental Protection
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Hartford, Connecticut 06106

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1200 Pennsylvania Avenue, NW
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Department Head
Environmental Department
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New York State Attorney General's Office
120 Broadway
New York, New York 10271

Administrator, Air & Environmental Quality
Compliance & Enforcement
P.O. Box 422
401 East State Street, Floor 4
Trenton, New Jersey 08625

Gentlemen and Ladies:

Re: Submittal of the Fifteenth Semiannual Progress Report Pursuant Paragraph 141 of the
Consent Decree, Entered in Civil Action No. C2-99-1181

Ohio Edison Company (OE) submits the following semiannual progress report for the period July 1,
2012 through December 31, 2012, as required by paragraph 141 of the Consent Decree (CD).

Appendix (B)(I)(A) — Installation of NO_x and SO₂ Equipment

Project	Construction Schedule	Date of Contract Execution	Major Component Delivery	Estimated Percentage Complete	Estimated Construction Completion	Date of Final Installation	Acceptance Test
SA 1-2, 4-7 Low-NO _x Burners				100 %		In-service prior to Consent Decree	
SA 1-2, 4, 6-7 Overfired Air				100 %		In-service prior to Consent Decree	
SA 1-5 Combustion Optimization		4/14/05	All Equipment Received	100%		11/2/05	N/A
SA 1 SNCR		N/A – FE General Contractor	All Equipment Received	100%		6/16/06	N/A
SA 2 SNCR				100%		In-service prior to Consent Decree	
SA 3 SNCR		N/A – FE General Contractor	All Equipment Received	100%		11/07/05	N/A
SA 4 SNCR		N/A – FE General Contractor	All Equipment Received	100%		5/19/06	N/A
SA 5 SNCR		N/A – FE General Contractor	All Equipment Received	100%		4/28/06	N/A
SA 6 SNCR		N/A – FE General Contractor	All Equipment Received	100%		6/3/05	N/A
SA 7 SNCR				100%		In-service prior to Consent Decree	
SA 6 SCR		January 2005	All Equipment Received	100%		04/20/10	N/A
SA 7 SCR		January 2005	All Equipment Received	100%		5/31/10	N/A
SA 1-4 SO ₂ Removal System		8/26/05	All Equipment Received	100%		05/31/10	N/A
SA 5 SO ₂ Removal System		8/26/05	All Equipment Received	100%		06/30/10	Completed 11/12/10
SA 6 & 7 SO ₂ Removal System		8/26/05	All Equipment Received	100%		6/30/10	Completed 11/12/10

Project	Construction Schedule	Date of Contract Execution	Major Component Delivery	Estimated Percentage Complete	Estimated Construction Completion	Date of Final Installation	Acceptance Test
MN 1 Scrubber Upgrades		N/A – FE General Contractor	All Equipment Received	100%		12/3/05	Completed 6/1/06
MN 2 Scrubber Upgrades		N/A – FE General Contractor	All Equipment Received	100%		11/8/06	Completed 6/19/07
MN 3 Scrubber Upgrades		N/A – FE General Contractor	All Equipment Received	100%		11/10/07	Completed 3/13/08
EL 5 Low-NO _x Burners, Overfired Air				100%		In-service prior to Consent Decree	
EL 5 SNCR		N/A – FE General Contractor	All Equipment Received	100%		2/26/07	N/A
Burger 4 SNCR		N/A – FE General Contractor	All Equipment Received	100%		11/24/08	N/A
Burger 5 SNCR		N/A – FE General Contractor	All Equipment Received	100%		12/08/08	N/A
Burger 4	Unit permanently shutdown on 12/31/10	NA	NA	NA	N/A	N/A	N/A
Burger 5	Unit permanently shutdown on 12/31/10	NA	NA	NA	N/A	N/A	N/A

Appendix (B)(I)(B) — 30-Day Rolling Average Emission Rates for NO_x and SO₂

CD Paragraph 54, 56–59:

1. The Sammis Unit 1 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 2 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 3 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 4 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 5 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 6 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 7 NO_x 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

2. Sample calculations were previously submitted for Sammis Unit 1.

Sample calculations were previously submitted for Sammis Unit 2.

Sample calculations were previously submitted for Sammis Unit 3.

Sample calculations were previously submitted for Sammis Unit 4.

Sample calculations were previously submitted for Sammis Unit 5.

Sample calculations were previously submitted for Sammis Unit 6.

Sample calculations were previously submitted for Sammis Unit 7.

3. There were no deviations of the Sammis Unit 1 NO_x 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 2 NO_x 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 3 NO_x 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 4 NO_x 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 5 NO_x 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 6 NO_x 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 7 NO_x 30-Day Rolling Average Emission Rate during the period.

4. Sammis Units 1, 2, 3, 4, 5, 6 & 7 Startup and Shutdown.

Unit	Date and Time Fuel Combusted	Date and Time Synchronized	Date and Time Fire Extinguished	Fifth and Subsequent Cold Startup Period Within 30-Day Period
SA-1			08/19/2012 0159	
SA-1	08/21/2012 2059	08/22/2012 0633	08/25/2012 0840	
SA-1				
SA-2	07/01/2012 1818	07/01/2012 2313	08/18/2012 0225	
SA-2	11/19/2012 2054	11/20/2012 1757	12/09/2012 2110	
SA-2	12/11/2012 1318	12/11/2012 2226		
SA-3			08/16/2012 0818	
SA-3	08/26/2012 1058	08/26/2012 2250	08/29/2012 0505	
SA-3	11/17/2012 0027	11/19/2012 0232	11/19/2012 1248	
SA-3	11/19/2012 1339	11/19/2012 1501	11/27/2012 0902	
	11/27/2012 1443	11/27/2012 1817		
SA-4			07/20/2012 2116	
SA-4	07/22/2012 1542	07/23/2012 0150	08/29/2012 0605	
SA-4	11/16/2012 2225	11/17/2012 1420	12/02/2012 0503	
SA-4	12/02/2012 1931	12/03/2012 0459		
SA-4				
SA-5			08/11/2012 0540	
SA-6			08/17/2012 2300	
SA-6	11/19/2012 1600	11/21/2012 0635	11/30/2012 0021	
SA-6	12/03/2012 2222	12/04/2012 1516	12/13/2012 1928	
SA-6	12/17/2012 0712	12/17/2012 2158		
SA-7			07/13/2012 2353	
SA-7	07/16/2012 0028	07/16/2012 0447	08/19/2012 0028	
SA-7	11/18/2012 1226	11/19/2012 0839		

CD Paragraph 81, 86, 88 & 89:

1. The Sammis Unit 1 SO₂ 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 2 SO₂ 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 3 SO₂ 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 4 SO₂ 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 5 SO₂ 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 6 SO₂ 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

The Sammis Unit 7 SO₂ 30-Day Rolling Average Emission Rate (lb/MMBtu) is attached for the period July 1, 2012 through December 31, 2012.

2. Sample calculations were previously submitted for Sammis Unit 1.

Sample calculations were previously submitted for Sammis Unit 2.

Sample calculations were previously submitted for Sammis Unit 3.

Sample calculations were previously submitted for Sammis Unit 4.

Sample calculations were previously submitted for Sammis Unit 5.

Sample calculations were previously submitted for Sammis Unit 6.

Sample calculations were previously submitted for Sammis Unit 7.

3. There were no deviations of the Sammis Unit 1 SO₂ 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 2 SO₂ 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 3 SO₂ 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 4 SO₂ 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 5 SO₂ 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 6 SO₂ 30-Day Rolling Average Emission Rate during the period.

There were no deviations of the Sammis Unit 7 SO₂ 30-Day Rolling Average Emission Rate during the period.

4. Sammis Unit 1 through 7 Startup and Shutdown. See pages 5 and 6.

Appendix (B)(I)(C) — PM Emission Rates

CD Paragraph 112: OE complied with the Unit 6 and Unit 7 particulate matter (PM) emissions rate testing. The annual PM test was conducted on August 8, 2012 with a flue A PM test result of a 0.012 lb/MMBtu PM rate and a flue B PM test result of a 0.009 lb/MMBtu PM rate. The result of the PM test was less than the PM emissions rate limit of 0.030 lb/MMBtu.

Appendix (B)(I)(D) — Plant-Wide Annual Cap and Monthly Cap**NO_x**

CD Paragraph 69: OE complied with the Plant-Wide Annual Cap for the Sammis plant for NO_x, which applies collectively to all units within the Sammis plant for the period January 1, 2012 through December 31, 2012. The Plant-Wide Annual Cap was 11,863 tons, and the actual emissions for this period were 5,756 tons.

CD Paragraph 70: Compliance with the Plant-Wide Annual Cap for the period January 1, 2012 through December 31, 2012 was determined by calculating actual annual emissions during all periods of Sammis plant operation using CEMS.

SO₂

CD Paragraph 93: OE complied with the Plant-Wide Annual Cap for the Sammis plant for SO₂, which applies collectively to all units within the Sammis plant for the period January 1, 2012 through December 31, 2012. The Plant-Wide Annual Cap was 29,900 tons, and the actual emissions for this period were 4,064 tons.

CD Paragraph 94: Compliance with the Monthly Cap for Sammis 1 through 5 for SO₂, which applies for May 2012 through September 2012. The Monthly Cap was 2,533 tons for May 2012, July 2012, and August 2012. The Monthly Cap was 2,451 tons for June 2012 and September 2012. The Sammis 1 through 5 actual Monthly emissions for May 1, 2012 to May 31, 2012 were 233 tons. The Sammis 1 through 5 actual Monthly emissions for June 1, 2012 to June 30, 2012 were 230 tons. The Sammis 1 through 5 actual Monthly emissions for July 1, 2012 to July 31, 2012 were 249 tons. The Sammis 1 through 5 actual Monthly emissions for August 1, 2012 to August 31, 2012 were 120 tons. The Sammis 1 through 5 actual Monthly emissions for September 1, 2012 to September 30, 2012 were 0 tons.

CD Paragraph 95: Compliance with the Plant-Wide Annual Cap for the period January 1, 2012 through December 31, 2012 was determined by calculating actual annual emissions during all periods of Sammis plant operation using CEMS.

Appendix (B)(I)(E) — Additional Reductions

CD Paragraph 62: This obligation has been eliminated since Eastlake Unit 5 was permanently retired from service and physically disabled in 2012.

CD Paragraph 65: This obligation has been eliminated since R. E. Burger Plant Units 4 and 5 were permanently retired from service and physically disabled in 2010.

CD Paragraph 91: OE complied with the requirement to demonstrate the Mansfield Units 1, 2, and 3 FGD Removal Efficiency. The Removal Efficiency requirement for each unit was 95 percent, and the actual Removal Efficiency was 97.1, 98.2, and 96.4 percent, respectively, for Units 1, 2, and 3. Compliance with the Removal Efficiency requirement for the period January 1, 2012 through December 31, 2012 was determined by CEMS data and coal sampling conducted on November 7, 2012 for Unit 1; November 14, 2012 for Unit 2; and November 14, 2012 for Unit 3. See attached summaries.

CD Paragraph 92: OE complied with the 12,000 tons of additional Mansfield Plant SO₂ Reductions for Mansfield Units 1, 2, and 3 for the period January 1, 2012 through December 31, 2012. The Additional Mansfield SO₂ Reductions required were 12,000 tons, and the actual reductions were 18,288 tons.

Appendix (B)(I)(F) — Interim Reductions for NO_x and SO₂

CD Paragraph 72: OE achieved 2,483 tons of the 2,483 tons of Interim NO_x Emission Reductions required by CD Paragraph 72 during the period July 1, 2005 and December 31, 2008.

CD Paragraph 97: OE achieved 35,000 tons of the 35,000 tons SO₂ Interim Emission Reductions required by CD Paragraph 97 during the period January 1, 2006 and December 31, 2008.

CD Paragraph 98: OE achieved 24,600 tons of the 24,600 tons SO₂ Interim Emission Reductions required by CD Paragraph 98 during the period January 1, 2007 and December 31, 2008.

Appendix (B)(I)(G) — Surrender of Restricted SO₂ Allowances

Nothing to report.

Appendix (B)(I)(H) — Generation of Super-Compliant Allowances

Annual NO_x – Super-Compliant Allowances

CD Paragraph 76: OE generated 1,127 Super-Compliant NO_x allowances between January 1, 2012 and December 31, 2012 from the W. H. Sammis Plant by operating well below the Consent Decree limits. The Super-Compliant allowances were calculated as follows.

The Sammis Unit 1 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. The 2012 Sammis 1 NO_x rate was 0.217 lb/MMBtu. Sammis Unit 1 NO_x rate reduction was 0.033 lb/MMBtu multiplied by the 2012 Annual Heat Input of 5,351,153 lb/MMBtu to calculate 88 Sammis 1 Super-Compliant NO_x tons.

The Sammis Unit 2 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. The 2012 Sammis 2 NO_x rate was 0.212 lb/MMBtu. Sammis Unit 2 NO_x rate reduction was 0.038 lb/MMBtu multiplied by the 2012 Annual Heat Input of 5,358,561 lb/MMBtu to calculate 102 Sammis 2 Super-Compliant NO_x tons.

The Sammis Unit 3 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. The 2012 Sammis 3 NO_x rate was 0.205 lb/MMBtu. Sammis Unit 3 NO_x rate reduction was 0.045 lb/MMBtu multiplied by the 2012 Annual Heat Input of 7,010,987 lb/MMBtu to calculate 158 Sammis 3 Super-Compliant NO_x tons.

The Sammis Unit 4 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. The 2012 Sammis 4 NO_x rate was 0.211 lb/MMBtu. Sammis Unit 4 NO_x rate reduction was 0.039 lb/MMBtu multiplied by the 2012 Annual Heat Input of 6,708,989 lb/MMBtu to calculate 131 Sammis 4 Super-Compliant NO_x tons.

The Sammis Unit 5 NO_x Consent Decree rate limit is 0.290 lb/MMBtu. The 2012 Sammis 5 NO_x rate was 0.243 lb/MMBtu. Sammis Unit 5 NO_x rate reduction was 0.047 lb/MMBtu multiplied by the 2012 Annual Heat Input of 5,693,018 lb/MMBtu to calculate 134 Sammis 5 Super-Compliant NO_x tons.

The Sammis Unit 6 NO_x Consent Decree rate limit is 0.100 lb/MMBtu. The 2012 Sammis 6 NO_x rate was 0.085 lb/MMBtu. Sammis Unit 6 NO_x rate reduction was 0.015 lb/MMBtu multiplied by the 2012 Annual Heat Input of 30,969,189 lb/MMBtu to calculate 232 Sammis 6 Super-Compliant NO_x tons.

The Sammis Unit 7 NO_x Consent Decree rate limit is 0.100 lb/MMBtu. The 2012 Sammis 7 NO_x rate was 0.080 lb/MMBtu. Sammis Unit 7 NO_x rate reduction was 0.020 lb/MMBtu multiplied by the 2012 Annual Heat Input of 28,246,520 lb/MMBtu to calculate 282 Super compliant NO_x tons.

Ozone Season NO_x – Super-Compliant Allowances

CD Paragraph 76: OE generated 619 Super-Compliant NO_x allowances during the 2012 ozone season from the W. H. Sammis Plant by operating well below the Consent Decree limits. The Super-Compliant allowances were calculated as follows.

The Sammis Unit 1 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. During the 2012 ozone season, the Sammis 1 NO_x rate was 0.222 lb/MMBtu. Sammis Unit 1 NO_x rate reduction was 0.028 lb/MMBtu multiplied by the 2012 ozone season Heat Input of 3,160,946 lb/MMBtu to calculate 44 Sammis 1 Super-Compliant NO_x tons.

The Sammis Unit 2 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. During the 2012 ozone season, the Sammis 2 NO_x rate was 0.216 lb/MMBtu. Sammis Unit 2 NO_x rate reduction was 0.034 lb/MMBtu multiplied by the 2012 ozone season Heat Input of 3,041,893 lb/MMBtu to calculate 52 Sammis 2 Super-Compliant NO_x tons.

The Sammis Unit 3 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. During the 2012 ozone season, the Sammis 3 NO_x rate was 0.213 lb/MMBtu. Sammis Unit 3 NO_x rate reduction was 0.037 lb/MMBtu multiplied by the 2012 ozone season Heat Input of 3,203,132 lb/MMBtu to calculate 59 Sammis 3 Super-Compliant NO_x tons.

The Sammis Unit 4 NO_x Consent Decree rate limit is 0.250 lb/MMBtu. During the 2012 ozone season, the Sammis 4 NO_x rate was 0.221 lb/MMBtu. Sammis Unit 4 NO_x rate reduction was 0.029 lb/MMBtu multiplied by the 2012 ozone season Heat Input of 3,305,714 lb/MMBtu to calculate 48 Sammis 4 Super-Compliant NO_x tons.

The Sammis Unit 5 NO_x Consent Decree rate limit is 0.290 lb/MMBtu. During the 2012 ozone season, the Sammis 5 NO_x rate was 0.245 lb/MMBtu. Sammis Unit 5 NO_x rate

reduction was 0.045 lb/MMBtu multiplied by the 2012 ozone season Heat Input of 4,992,271 lb/MMBtu to calculate 112 Sammis 5 Super-Compliant NO_x tons.

The Sammis Unit 6 NO_x Consent Decree rate limit is 0.100 lb/MMBtu. During the 2012 ozone season, the Sammis 6 NO_x rate was 0.077 lb/MMBtu. Sammis Unit 6 NO_x rate reduction was 0.023 lb/MMBtu multiplied by the 2012 ozone season Heat Input of 13,986,402 lb/MMBtu to calculate 161 Sammis 6 Super-Compliant NO_x tons.

The Sammis Unit 7 NO_x Consent Decree rate limit is 0.100 lb/MMBtu. During the 2012 ozone season, the Sammis 7 NO_x rate was 0.080 lb/MMBtu. Sammis Unit 7 NO_x rate reduction was 0.020 lb/MMBtu multiplied by the 2012 ozone season Heat Input of 14,279,714 lb/MMBtu to calculate 143 Super compliant NO_x tons.

Title IV (SO₂)

CD Paragraph 106: OE generated 18,554 Super-Compliant SO₂ allowances between January 1, 2012 and December 31, 2012 from the W. H. Sammis Plant by operating well below the Consent Decree limits. The Super-Compliant allowances were calculated as follows.

The Sammis Unit 1 SO₂ Consent Decree rate limit is 1.10 lb/MMBtu. The 2012 Sammis 1 SO₂ rate was 0.097 lb/MMBtu. Sammis Unit 1 SO₂ rate reduction was 1.003 lb/MMBtu multiplied by the 2012 Annual Heat Input of 5,351,153 lb/MMBtu to calculate 2,684 Sammis 1 Super-Compliant SO₂ tons.

The Sammis Unit 2 SO₂ Consent Decree rate limit is 1.10 lb/MMBtu. The 2012 Sammis 2 SO₂ rate was 0.097 lb/MMBtu. Sammis Unit 2 SO₂ rate reduction was 1.003 lb/MMBtu multiplied by the 2012 Annual Heat Input of 5,358,561 lb/MMBtu to calculate 2,687 Sammis 2 Super-Compliant SO₂ tons.

The Sammis Unit 3 SO₂ Consent Decree rate limit is 1.10 lb/MMBtu. The 2012 Sammis 3 SO₂ rate was 0.097 lb/MMBtu. Sammis Unit 3 SO₂ rate reduction was 1.003 lb/MMBtu multiplied by the 2012 Annual Heat Input of 7,010,987 lb/MMBtu to calculate 3,516 Sammis 3 Super-Compliant SO₂ tons.

The Sammis Unit 4 SO₂ Consent Decree rate limit is 1.10 lb/MMBtu. The 2012 Sammis 4 SO₂ rate was 0.097 lb/MMBtu. Sammis Unit 4 SO₂ rate reduction was 1.003 lb/MMBtu multiplied by the 2012 Annual Heat Input of 6,708,989 lb/MMBtu to calculate 3,365 Sammis 4 Super-Compliant SO₂ tons.

The Sammis Unit 5 SO₂ Consent Decree rate limit is 0.130 lb/MMBtu. The 2012 Sammis 5 SO₂ rate was 0.090 lb/MMBtu. Sammis Unit 5 SO₂ rate reduction was 0.040 lb/MMBtu multiplied by the 2012 Annual Heat Input of 5,693,018 lb/MMBtu to calculate 113 Sammis 5 Super-Compliant SO₂ tons.

The Sammis Unit 6 SO₂ Consent Decree rate limit is 0.130 lb/MMBtu. The 2012 Sammis 6 SO₂ rate was 0.090 lb/MMBtu. Sammis Unit 6 SO₂ rate reduction was 0.040 lb/MMBtu multiplied by the 2012 Annual Heat Input of 30,969,189 lb/MMBtu to calculate 619 Sammis 6 Super-Compliant SO₂ tons.

The Sammis Unit 7 SO₂ Consent Decree rate limit is 0.130 lb/MMBtu. The 2012 Sammis 7 SO₂ rate was 0.090 lb/MMBtu. Sammis Unit 7 SO₂ rate reduction was 0.040 lb/MMBtu multiplied by the 2012 Annual Heat Input of 28,246,520 lb/MMBtu to calculate 565 Super compliant SO₂ tons.

Appendix (B)(I)(I) — NO_x System-Wide Annual Emission Rate

Nothing to report.

Appendix (B)(I)(J) — Environmentally Beneficial Projects

1. Cash Contributions

Date of Payment	Recipient	Amount Paid
Nothing to report		

2. Renewable Energy Development Projects

Date of Execution	Megawatts	Location	Commencement of Operation	Description
3/21/2006	16	Cambria County, PA	6/29/2007	Wind turbine purchase power agreement for 23-year term entered into by FES, an affiliate of OE (agreement previously submitted)
7/08/2008	62.5	Adams County, PA	August 31, 2009 (estimated)	Wind turbine purchase power agreement for 22-year term entered into by FES, an affiliate of OE (agreement previously submitted)
1/09/2009	16	Cambria County, PA	August 12, 2009	Wind turbine purchase power agreement for 23-year term entered into by FES, an affiliate of OE (agreement previously submitted)

Appendix (B)(II) — Deviation Reports

Nothing to report.

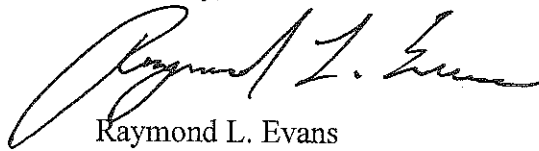
Appendix (B)(III) – Ohio Edison Submissions

Date Submitted	Plans/Submissions	Pending Review and Approval
12/22/11	EL5 NO _x Substitution Compliance Plan	Obligation eliminated by EL5 being permanently retired from service and physically disabled in 2012

Certification

"This information was prepared either by me or under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my evaluation, or the direction and my inquiry of the person(s) who manages the system, or the persons(s) directly responsible for gathering the information, I hereby certify under penalty of law that, to the best of my knowledge and belief, this information is true, accurate, and complete. I understand that there are significant penalties for submitting false, inaccurate, or incomplete information to the United States."

Sincerely,

A handwritten signature in black ink, appearing to read "Raymond L. Evans". The signature is fluid and cursive, with a large initial "R" and "E".

Raymond L. Evans

Vice President, Environmental

Attachments
By UPS Ground

Average Data

Plant: W.H. SAMMIS

Interval: 30 Day

Type: Roll

Report Period: 07/01/2012 00:00 Through 12/31/2012 23:59

Time Online Criteria: 1 minute(s)

Source		BLR1P	BLR2P	BLR3P	BLR4P	UNIT5	UNIT6	UNIT7
Parameter (Unit)		NOX#/MM1 (LB/MMBTU)	NOX#/MM2 (LB/MMBTU)	NOX#/MM3 (LB/MMBTU)	NOX#/MM4 (LB/MMBTU)	5NOX#/MM (LB/MMBTU)	NOX#/MM (LB/MMBTU)	NOX#/MM (LB/MMBTU)
07/01/12	00:00	0.219	0.210	0.206	0.218	0.235	0.077	0.079
07/02/12	00:00	0.220	0.210	0.208	0.220	0.238	0.077	0.078
07/03/12	00:00	0.222	0.211	0.209	0.223	0.241	0.078	0.078
07/04/12	00:00	0.224	0.213	0.210	0.224	0.242	0.077	0.078
07/05/12	00:00	0.226	0.216	0.212	0.227	0.246	0.077	0.078
07/06/12	00:00	0.229	0.219	0.215	0.228	0.248	0.077	0.078
07/07/12	00:00	0.231	0.222	0.217	0.229	0.252	0.077	0.078
07/08/12	00:00	0.232	0.223	0.216	0.228	0.257	0.077	0.078
07/09/12	00:00	0.232	0.222	0.216	0.230	0.260	0.077	0.078
07/10/12	00:00	0.233	0.222	0.217	0.231	0.262	0.077	0.078
07/11/12	00:00	0.233	0.222	0.218	0.231	0.264	0.077	0.078
07/12/12	00:00	0.233	0.222	0.218	0.231	0.261	0.077	0.078
07/13/12	00:00	0.233	0.222	0.219	0.231	0.259	0.077	0.081
07/14/12	00:00	0.234	0.222	0.219	0.231	0.257	0.077	0.081
07/15/12	00:00	0.233	0.222	0.220	0.231	0.254	0.077	0.081
07/16/12	00:00	0.234	0.224	0.222	0.233	0.255	0.074	0.083
07/17/12	00:00	0.234	0.224	0.222	0.234	0.257	0.074	0.083
07/18/12	00:00	0.236	0.225	0.224	0.236	0.257	0.074	0.083
07/19/12	00:00	0.237	0.225	0.225	0.236	0.256	0.074	0.083
07/20/12	00:00	0.236	0.224	0.225	0.235	0.252	0.074	0.083
07/21/12	00:00	0.234	0.224	0.223	0.235	0.248	0.074	0.083
07/22/12	00:00	0.232	0.223	0.221	0.235	0.245	0.073	0.083
07/23/12	00:00	0.232	0.225	0.222	0.233	0.245	0.073	0.083
07/24/12	00:00	0.233	0.225	0.223	0.231	0.246	0.073	0.083
07/25/12	00:00	0.234	0.226	0.224	0.230	0.249	0.074	0.083
07/26/12	00:00	0.234	0.224	0.226	0.231	0.251	0.074	0.083
07/27/12	00:00	0.234	0.220	0.227	0.232	0.252	0.074	0.083
07/28/12	00:00	0.233	0.218	0.225	0.231	0.250	0.074	0.083
07/29/12	00:00	0.230	0.218	0.224	0.230	0.249	0.075	0.083
07/30/12	00:00	0.230	0.220	0.224	0.230	0.249	0.075	0.083
07/31/12	00:00	0.230	0.223	0.225	0.229	0.248	0.075	0.083
08/01/12	00:00	0.229	0.224	0.224	0.229	0.248	0.075	0.083
08/02/12	00:00	0.229	0.224	0.224	0.228	0.246	0.076	0.083
08/03/12	00:00	0.228	0.223	0.225	0.227	0.245	0.076	0.083
08/04/12	00:00	0.226	0.221	0.224	0.226	0.242	0.077	0.082
08/05/12	00:00	0.224	0.217	0.221	0.224	0.240	0.077	0.082
08/06/12	00:00	0.223	0.214	0.218	0.222	0.236	0.077	0.083
08/07/12	00:00	0.222	0.214	0.218	0.221	0.231	0.077	0.083
08/08/12	00:00	0.221	0.214	0.217	0.219	0.228	0.077	0.083
08/09/12	00:00	0.222	0.214	0.218	0.219	0.224	0.078	0.083
08/10/12	00:00	0.221	0.214	0.218	0.219	0.220	0.078	0.083
08/11/12	00:00	0.221	0.214	0.217	0.218	0.220	0.078	0.083
08/12/12	00:00	0.220	0.214	0.217	0.217	0.220	0.079	0.083
08/13/12	00:00	0.221	0.214	0.218	0.217	0.220	0.079	0.083
08/14/12	00:00	0.222	0.214	0.216	0.217	0.220	0.079	0.079
08/15/12	00:00	0.221	0.212	0.215	0.216	0.220	0.079	0.077
08/16/12	00:00	0.220	0.211	0.215	0.216	0.220	0.080	0.077
08/17/12	00:00	0.219	0.210	0.216	0.215	0.220	0.080	0.077
08/18/12	00:00	0.220	0.210	0.215	0.214	0.220	0.080	0.077
08/19/12	00:00	0.220	0.210	0.215	0.213	0.220	0.080	0.077
08/20/12	00:00	0.220	0.210	0.215	0.212	0.220	0.080	0.077
08/21/12	00:00	0.220	0.210	0.215	0.213	0.220	0.080	0.077
08/22/12	00:00	0.220	0.210	0.215	0.213	0.220	0.080	0.077
08/23/12	00:00	0.220	0.210	0.215	0.214	0.220	0.080	0.077
08/24/12	00:00	0.222	0.210	0.215	0.215	0.220	0.080	0.077
08/25/12	00:00	0.222	0.210	0.215	0.216	0.220	0.080	0.077
08/26/12	00:00	0.222	0.210	0.215	0.216	0.220	0.080	0.077

11/03/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/04/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/05/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/06/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/07/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/08/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/09/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/10/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/11/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/12/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/13/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/14/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/15/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/16/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/17/12	00:00	0.222	0.210	0.214	0.220	0.220	0.080	0.077
11/18/12	00:00	0.222	0.210	0.214	0.218	0.220	0.080	0.077
11/19/12	00:00	0.222	0.210	0.214	0.217	0.220	0.080	0.077
11/20/12	00:00	0.222	0.210	0.214	0.217	0.220	0.080	0.080
11/21/12	00:00	0.222	0.209	0.214	0.216	0.220	0.080	0.082
11/22/12	00:00	0.222	0.210	0.214	0.215	0.220	0.080	0.082
11/23/12	00:00	0.222	0.211	0.212	0.214	0.220	0.081	0.081
11/24/12	00:00	0.222	0.210	0.211	0.214	0.220	0.081	0.082
11/25/12	00:00	0.222	0.209	0.210	0.214	0.220	0.081	0.081
11/26/12	00:00	0.222	0.207	0.210	0.215	0.220	0.081	0.081
11/27/12	00:00	0.222	0.205	0.210	0.216	0.220	0.081	0.081
11/28/12	00:00	0.222	0.208	0.209	0.215	0.220	0.081	0.081
11/29/12	00:00	0.222	0.206	0.209	0.216	0.220	0.082	0.081
11/30/12	00:00	0.222	0.208	0.209	0.216	0.220	0.082	0.081
12/01/12	00:00	0.222	0.210	0.206	0.216	0.220	0.082	0.081
12/02/12	00:00	0.222	0.208	0.206	0.216	0.220	0.082	0.081
12/03/12	00:00	0.222	0.208	0.204	0.217	0.220	0.082	0.081
12/04/12	00:00	0.222	0.208	0.203	0.216	0.220	0.082	0.081
12/05/12	00:00	0.222	0.208	0.202	0.216	0.220	0.082	0.081
12/06/12	00:00	0.222	0.208	0.201	0.216	0.220	0.082	0.081
12/07/12	00:00	0.222	0.208	0.201	0.217	0.220	0.082	0.081
12/08/12	00:00	0.222	0.210	0.202	0.217	0.220	0.082	0.081
12/09/12	00:00	0.222	0.210	0.202	0.216	0.220	0.082	0.081
12/10/12	00:00	0.222	0.210	0.202	0.217	0.220	0.082	0.081
12/11/12	00:00	0.222	0.210	0.201	0.217	0.220	0.082	0.082
12/12/12	00:00	0.222	0.211	0.201	0.218	0.220	0.082	0.082
12/13/12	00:00	0.222	0.212	0.202	0.218	0.220	0.082	0.082
12/14/12	00:00	0.222	0.211	0.203	0.217	0.220	0.082	0.082
12/15/12	00:00	0.222	0.212	0.204	0.216	0.220	0.082	0.082
12/16/12	00:00	0.222	0.212	0.205	0.215	0.220	0.082	0.082
12/17/12	00:00	0.222	0.212	0.206	0.215	0.220	0.082	0.082
12/18/12	00:00	0.222	0.214	0.207	0.213	0.220	0.084	0.082
12/19/12	00:00	0.222	0.214	0.206	0.214	0.220	0.085	0.082
12/20/12	00:00	0.222	0.215	0.206	0.214	0.220	0.085	0.079
12/21/12	00:00	0.222	0.216	0.206	0.214	0.220	0.085	0.078
12/22/12	00:00	0.222	0.217	0.205	0.215	0.220	0.085	0.078
12/23/12	00:00	0.222	0.219	0.206	0.215	0.220	0.085	0.078
12/24/12	00:00	0.222	0.220	0.207	0.215	0.220	0.085	0.078
12/25/12	00:00	0.222	0.220	0.208	0.215	0.220	0.085	0.078
12/26/12	00:00	0.222	0.221	0.206	0.215	0.220	0.086	0.078
12/27/12	00:00	0.222	0.224	0.207	0.215	0.220	0.085	0.079
12/28/12	00:00	0.222	0.225	0.208	0.214	0.220	0.085	0.079
12/29/12	00:00	0.222	0.225	0.210	0.214	0.220	0.085	0.079
12/30/12	00:00	0.222	0.224	0.211	0.214	0.220	0.085	0.079
12/31/12	00:00	0.222	0.224	0.214	0.214	0.220	0.085	0.080

Average Data

Plant: W.H. SAMMIS

Interval: 30 Day

Type: Roll

Report Period: 07/01/2012 00:00 Through 12/31/2012 23:59

Time Online Criteria: 60 minute(s)

Source		FLUEA	FLUEB	FLUEC
Parameter (Unit)		SO2#/MM (LB/MMBTU)	SO2#/MM (LB/MMBTU)	SO2#/MM (LB/MMBTU)
07/01/12	00:00	0.095	0.089	0.097
07/02/12	00:00	0.095	0.089	0.097
07/03/12	00:00	0.095	0.090	0.097
07/04/12	00:00	0.096	0.090	0.097
07/05/12	00:00	0.096	0.090	0.098
07/06/12	00:00	0.096	0.090	0.098
07/07/12	00:00	0.096	0.090	0.098
07/08/12	00:00	0.096	0.090	0.099
07/09/12	00:00	0.096	0.090	0.099
07/10/12	00:00	0.096	0.090	0.099
07/11/12	00:00	0.097	0.090	0.100
07/12/12	00:00	0.097	0.090	0.099
07/13/12	00:00	0.097	0.090	0.099
07/14/12	00:00	0.096	0.091	0.099
07/15/12	00:00	0.095	0.091	0.099
07/16/12	00:00	0.095	0.092	0.099
07/17/12	00:00	0.095	0.092	0.099
07/18/12	00:00	0.095	0.092	0.099
07/19/12	00:00	0.095	0.091	0.096
07/20/12	00:00	0.094	0.091	0.095
07/21/12	00:00	0.094	0.091	0.095
07/22/12	00:00	0.094	0.091	0.095
07/23/12	00:00	0.094	0.091	0.095
07/24/12	00:00	0.094	0.091	0.094
07/25/12	00:00	0.095	0.092	0.094
07/26/12	00:00	0.094	0.092	0.093
07/27/12	00:00	0.095	0.092	0.093
07/28/12	00:00	0.095	0.092	0.093
07/29/12	00:00	0.095	0.091	0.093
07/30/12	00:00	0.095	0.091	0.094
07/31/12	00:00	0.095	0.091	0.093
08/01/12	00:00	0.095	0.092	0.092
08/02/12	00:00	0.095	0.092	0.092
08/03/12	00:00	0.095	0.091	0.091
08/04/12	00:00	0.095	0.092	0.090
08/05/12	00:00	0.095	0.092	0.090
08/06/12	00:00	0.095	0.092	0.090
08/07/12	00:00	0.095	0.092	0.090
08/08/12	00:00	0.095	0.092	0.090
08/09/12	00:00	0.095	0.092	0.090
08/10/12	00:00	0.095	0.092	0.090

10/02/12	00:00	0.100	0.087	0.100
10/03/12	00:00	0.100	0.087	0.100
10/04/12	00:00	0.100	0.087	0.100
10/05/12	00:00	0.100	0.087	0.100
10/06/12	00:00	0.100	0.087	0.100
10/07/12	00:00	0.100	0.087	0.100
10/08/12	00:00	0.100	0.087	0.100
10/09/12	00:00	0.100	0.087	0.100
10/10/12	00:00	0.100	0.087	0.100
10/11/12	00:00	0.100	0.087	0.100
10/12/12	00:00	0.100	0.087	0.100
10/13/12	00:00	0.100	0.087	0.100
10/14/12	00:00	0.100	0.087	0.100
10/15/12	00:00	0.100	0.087	0.100
10/16/12	00:00	0.100	0.087	0.100
10/17/12	00:00	0.100	0.087	0.100
10/18/12	00:00	0.100	0.087	0.100
10/19/12	00:00	0.100	0.087	0.100
10/20/12	00:00	0.100	0.087	0.100
10/21/12	00:00	0.100	0.087	0.100
10/22/12	00:00	0.100	0.087	0.100
10/23/12	00:00	0.100	0.087	0.100
10/24/12	00:00	0.100	0.087	0.100
10/25/12	00:00	0.100	0.087	0.100
10/26/12	00:00	0.100	0.087	0.100
10/27/12	00:00	0.100	0.087	0.100
10/28/12	00:00	0.100	0.087	0.100
10/29/12	00:00	0.100	0.087	0.100
10/30/12	00:00	0.100	0.087	0.100
10/31/12	00:00	0.100	0.087	0.100
11/01/12	00:00	0.100	0.087	0.100
11/02/12	00:00	0.100	0.087	0.100
11/03/12	00:00	0.100	0.087	0.100
11/04/12	00:00	0.100	0.087	0.100
11/05/12	00:00	0.100	0.087	0.100
11/06/12	00:00	0.100	0.087	0.100
11/07/12	00:00	0.100	0.087	0.100
11/08/12	00:00	0.100	0.087	0.100
11/09/12	00:00	0.100	0.087	0.100
11/10/12	00:00	0.100	0.087	0.100
11/11/12	00:00	0.100	0.087	0.100
11/12/12	00:00	0.100	0.087	0.100
11/13/12	00:00	0.100	0.087	0.100
11/14/12	00:00	0.100	0.087	0.100
11/15/12	00:00	0.100	0.087	0.100
11/16/12	00:00	0.100	0.087	0.100
11/17/12	00:00	0.100	0.087	0.105
11/18/12	00:00	0.100	0.087	0.105
11/19/12	00:00	0.100	0.085	0.104
11/20/12	00:00	0.100	0.084	0.104
11/21/12	00:00	0.100	0.085	0.103
11/22/12	00:00	0.100	0.085	0.103

GRACE CONSULTING, INC.
Particulate Analysis

FirstEnergy
Sammis Station
Unit A
12-270

Run Number			1	2	3
Date			8/8/2012	8/8/2012	8/8/2012
Location			Unit A	Unit A	Unit A
Comment			Method 5	Method 5	Method 5
Start Time			9:10	11:22	13:34
End Time			10:42	12:37	14:47
Barometric Pressure	In. Hg.	Pb	29	29	29
Static Pressure	In. H2O	Pf	-0.86	-0.85	-0.87
Condensate Collected	grams	Vlc	145	153	148
Volume Sampled	dscf	Vm	51.198	52.882	50.709
Meter Correction Factor		Y	0.976	0.976	0.976
Pitot Tube Correction Factor		Pc	0.842	0.842	0.842
Square Root of Delta P			0.809	0.828	0.823
Orifice Pressure	In. H2O		2.305	2.457	2.256
Meter Temperature	Degree F		99	105	106
Flue Temperature	Degree F		122	124	124
Percent CO2	%		12.8	12.30	12.40
Percent O2	%		5.10	5.60	5.50
Diameter of Nozzle	In.		0.250	0.250	0.250
Area of Flue	Sq. ft.		804.25	804.25	804.25
Sample Time	min.		60	60	60
Weight Gain	grams		0.0214	0.0211	0.0136
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	28.94	28.94	28.94
Corrected Sample Volume	dscf	Vms	46.01	47.04	45.01
Measured Moisture of Flue Gas	%	Bws	12.94%	13.30%	13.42%
Calculated Saturated Moisture	%	Bwsat	12.59%	13.30%	13.30%
Moisture used for Calculations	%	Bwsu	12.59%	13.30%	13.30%
Molecular Weight	lb/lb-mole	Ms	28.71	28.57	28.58
Velocity of Flue Gas	fps	Vs	48.74	50.09	49.78
Volume of Flue Gas	ACFM	Vo	2,352,006	2,417,208	2,402,245
Volume of Flue Gas	DSCFM	Qsd	1,803,925	1,832,617	1,821,140
Dust Concentration	lb/dscf	Wd	1.03E-06	9.89E-07	6.66E-07
Dust Concentration	lb/hr	Wh	110.99	108.75	72.81
Dust Concentration	gr/acf	Wa	5.51E-03	5.25E-03	3.54E-03
Dust Concentration	gr/dscf	Ws	7.18E-03	6.92E-03	4.66E-03
Isokinetic Rate	%	%I	100.7	100.9	97.3
Particulate Emissions	lb/mmBtu	DI	0.013	0.013	0.009

Averages: Flue Temp.:	123.3333	Part. Emis: lb/dscf	8.94E-07
ACFM:	2,390,486	lb/hr	97.52
DSCFM:	1,819,227	gr/acf	4.76E-03
Percent O2:	5.40%	gr/dscf	6.26E-03
		lb/mmBtu	0.012

GRACE CONSULTING, INC.
Particulate Analysis

FirstEnergy
Sammis Station
Unit B
12-270

Run Number			1	2	3
Date			8/8/2012	8/8/2012	8/8/2012
Location			Unit B	Unit B	Unit B
Comment			Method 5	Method 5	Method 5
Start Time			9:10	11:22	13:34
End Time			10:42	12:37	14:47
Barometric Pressure	In. Hg.	Pb	29	29	29
Static Pressure	In. H2O	Pf	-0.84	-0.84	-0.84
Condensate Collected	grams	Vlc	168	150	153
Volume Sampled	dcf	Vm	49.615	49.869	50.891
Meter Correction Factor		Y	0.981	0.981	0.981
Pitot Tube Correction Factor		Pc	0.841	0.841	0.841
Square Root of Delta P			0.835	0.824	0.837
Orifice Pressure	In. H2O		2.083	1.929	2.014
Meter Temperature	Degree F		103	110	113
Flue Temperature	Degree F		124	126	125
Percent CO2	%		12.9	13.00	12.90
Percent O2	%		5.00	4.90	5.00
Diameter of Nozzle	In.		0.247	0.247	0.247
Area of Flue	Sq. ft.		804.25	804.25	804.25
Sample Time	min.		60	60	60
Weight Gain	grams		0.0181	0.0136	0.0117
F-Factor			9,780	9,780	9,780
Absolute Flue Pressure	in. Hg	Ps	28.94	28.94	28.94
Corrected Sample Volume	dscf	Vms	44.48	44.14	44.82
Measured Moisture of Flue Gas	%	Bws	15.12%	13.81%	13.86%
Calculated Saturated Moisture	%	Bwsat	13.30%	14.04%	13.66%
Moisture used for Calculations	%	Bwsu	13.30%	13.81%	13.66%
Molecular Weight	lb/lb-mole	Ms	28.63	28.58	28.59
Velocity of Flue Gas	fps	Vs	50.40	49.87	50.60
Volume of Flue Gas	ACFM	Vo	2,432,066	2,406,345	2,441,894
Volume of Flue Gas	DSCFM	Qsd	1,843,910	1,807,417	1,840,388
Dust Concentration	lb/dscf	Wd	8.97E-07	6.79E-07	5.76E-07
Dust Concentration	lb/hr	Wh	99.28	73.68	63.56
Dust Concentration	gr/acf	Wa	4.76E-03	3.57E-03	3.04E-03
Dust Concentration	gr/dscf	Ws	6.28E-03	4.76E-03	4.03E-03
Isokinetic Rate	%	%I	99.3	98.4	98.3
Particulate Emissions	lb/mmBtu	DI	0.012	0.009	0.007

Averages: Flue Temp.:	125	Part. Emis: lb/dscf	7.17E-07
ACFM:	2,426,768	lb/hr	78.84
DSCFM:	1,830,572	gr/acf	3.79E-03
Percent O2:	4.97%	gr/dscf	5.02E-03
		lb/mmBtu	0.009

Removal Efficiency

Run Number	1	2	3	Average
<u>Unit 1 Potential SO2 Emissions (Calculated)</u>				
SO2 (lb/hr)	54590	59147	62307	58682
SO2 (lb/MMBtu)	5.6177	6.0079	6.4432	6.0229
<u>Unit 1 SO2 Emissions Actual (CEMS)</u>				
Unit 1 A Stack Measured Emissions				
SO2 (lb/hr)	495.27	541.08	783.16	606.50
SO2 (lb/MMBtu)	0.12766	0.13898	0.19979	0.15548
Unit 1 B Stack Measured Emissions				
SO2 (lb/hr)	751.31	719.67	890.27	787.08
SO2 (lb/MMBtu)	0.18076	0.17480	0.21932	0.19163
Total Measured SO2 Emitted From Unit				
SO2 (lb/hr)	1246.58	1260.74	1673.43	1393.58
SO2 (lb/MMBtu)	0.15421	0.15689	0.20956	0.17355
Unit 1 SO2 Removal Efficiency				
RE (based on lb/hr)	97.72	97.87	97.31	97.63
RE (based on lb/MMBtu)	97.25	97.39	96.75	97.13

Removal Efficiency

Run Number	1	2	3	Average
<u>Unit 2 Potential SO2 Emissions (Calculated)</u>				
SO2 (lb/hr)	67228	62014	62692	63978
SO2 (lb/MMBtu)	6.0589	5.8830	6.0833	6.0084
<u>Unit 2 SO2 Emissions Actual (CEMS)</u>				
Unit 2 A Stack Measured Emissions				
SO2 (lb/hr)	376.53	424.33	467.46	422.77
SO2 (lb/MMBtu)	0.09806	0.11485	0.12314	0.11202
Unit 2 B Stack Measured Emissions				
SO2 (lb/hr)	425.18	388.85	441.36	418.46
SO2 (lb/MMBtu)	0.09895	0.09390	0.10502	0.09929
Total Measured SO2 Emitted From Unit				
SO2 (lb/hr)	801.70	813.18	908.82	841.23
SO2 (lb/MMBtu)	0.09850	0.10438	0.11408	0.10565
Unit 2 SO2 Removal Efficiency				
RE (based on lb/hr)	98.81	98.69	98.55	98.68
RE (based on lb/MMBtu)	98.37	98.23	98.12	98.24

Removal Efficiency

Run Number	1	2	3	Average
<u>Unit 3 Potential SO2 Emissions (Calculated)</u>				
SO2 (lb/hr)	53641	55962	55009	54871
SO2 (lb/MMBtu)	5.9399	6.2054	6.1535	6.0996
<u>Unit 3 SO2 Emissions Actual (CEMS)</u>				
Unit 3 A Stack Measured Emissions				
SO2 (lb/hr)	846.51	822.69	827.85	832.35
SO2 (lb/MMBtu)	0.21849	0.22288	0.21696	0.21944
Unit 3 B Stack Measured Emissions				
SO2 (lb/hr)	813.19	804.60	801.16	806.31
SO2 (lb/MMBtu)	0.21828	0.22902	0.21756	0.22162
Total Measured SO2 Emitted From Unit				
SO2 (lb/hr)	1659.70	1627.28	1629.01	1638.66
SO2 (lb/MMBtu)	0.21839	0.22595	0.21726	0.22053
Unit 3 SO2 Removal Efficiency				
RE (based on lb/hr)	96.91	97.09	97.04	97.01
RE (based on lb/MMBtu)	96.32	96.36	96.47	96.38